

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A filter for an air bag gas generator comprises:

a first layer formed by helically winding a wire rod having a cross-sectional area of 0.03 to 0.8mm² in such a way that a pitch angle of wire rods vertically superposed in the radial direction is symmetrical;

a second layer disposed on the outer side of the first layer in the radial direction and formed to have a finer filter particle size than the first layer, and

a third layer disposed on the outer side of the second layer in the radial direction, wherein the second layer is formed by winding a wire rod having a smaller cross-sectional area than the wire rod that forms the first layer to form a wire mesh, projects in an axial direction from the end ~~surface~~ surfaces of the first and third layers ~~in the axial direction of the filter~~, and is formed by winding the wire mesh one to three times around the outer side of the first layer,

the third layer is formed from a wire rod having a larger cross-sectional area than the wire rod of the second layer on the outer side of the second layer,

the first layer, the second layer and the third layer are sintered to integrate the layers.

2-3. (Canceled)

4. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the third layer is formed by helically winding the wire rod in such a way that the pitch angle of wire rods vertically superposed in the radial direction is symmetrical.

5. (Cancelled)

6. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the intersecting angle of wire rods of the first layer vertically superposed in the radial direction is greater than 0° and not more than 90° .

7. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein, in the wire rod forming the first layer and helically wound and vertically superposed in the radial direction, the section vertically superposed in the radial direction is formed flat.

8. (Cancelled)

9. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the second layer is formed from a wire rod having a wire diameter of 0.02mm to 0.7mm.

10. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the filter for an air bag gas generator purifies the gas generated by the combustion of a solid gas generating agent having a combustion temperature of not more than 2000K.

11. **(Currently amended)** A method for the manufacture of a cylindrical filter for an air bag gas generator, comprising the steps of:

forming a first layer by helically winding a wire rod having a cross-sectional area of 0.03 to 0.8mm² in at least one reciprocating process in the axial direction of the filter to be manufactured; and

forming a second layer having a finer filter particle size than the first layer on the outer side of the first layer in the radial direction by winding a wire rod having a smaller cross-sectional area than the wire rod that forms the first layer to form a wire mesh so that the wire mesh is wound one to three times around the outer side of the first layer and the second layer projects in an axial direction from the end ~~surface~~ surfaces of the first and third layers ~~in the axial direction of the filter~~, and

forming a third layer by winding a wire rod having a larger cross-sectional area than the wire rod of the second layer on the outer side of the second layer in the radial direction, and sintering the first layer, the second layer and the third layer to integrate the layers.

12. (Previously presented) The method for the manufacture of a filter for an air bag gas generator according to claim 11, wherein the second layer is formed from a filter material having a filter particle size 6 to 400µm, and a third layer is further formed on the outer side of the second layer in the radial direction by winding a wire rod having a larger cross-sectional area than the wire rod of the second layer.

13. (Cancelled)

14. (Previously presented) A gas generator for an air bag in which gas is generated for inflating an air bag to restrain a passenger upon collision of a vehicle, comprising:

an ignition device as an actuation initiation device of the gas generator;

a solid gas generating agent that is ignited and burned by the ignition device to generate a gas for inflating the air bag;

a housing; and

a filter for cooling the gas, wherein

the filter is the filter according to claim 1, and

the projected portion of the second layer of the filter is squashed against the housing's inner surface so that a gap between the housing's inner surface and the filter's end surface is eliminated to prevent gas from leaking at the filter's end surface.

15. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the wire mesh of the second layer is a plain Dutch weave wire mesh, a twilled Dutch weave wire mesh or a plain weave wire mesh.

16. (Previously presented) The method for the manufacture of a cylindrical filter for an air bag gas generator according to claim 11, wherein the wire mesh of the second layer is a plain Dutch weave wire mesh, a twilled Dutch weave wire mesh or a plain weave wire mesh.

17. (Previously presented) The gas generator for an air bag according to claim 14, wherein the wire mesh of the second layer is a plain Dutch weave wire mesh, a twilled Dutch weave wire mesh or a plain weave wire mesh.

18. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the filter particle size of the second layer is 6 to 400 μ m.

19. (Previously presented) The method for the manufacture of a cylindrical filter for an air bag gas generator according to claim 11, wherein the filter particle size of the second layer is 6 to 400 μ m.

20. (Previously presented) The gas generator for an air bag according to claim 14, wherein the filter particle size of the second layer is 6 to 400 μ m.

21. (Previously presented) The filter for an air bag gas generator according to claim 1, wherein the filter particle size of the second layer is 30 to 100 μ m.

22. (Previously presented) The method for the manufacture of a cylindrical filter for an air bag gas generator according to claim 11, wherein the filter particle size of the second layer is 30 to 100 μ m.

23. (Previously presented) The gas generator for an air bag according to claim 14, wherein the filter particle size of the second layer is 30 to 100 μ m.